I CLAIM:

1. A composition having formula I or II:

X_1-P-X_2-Z-M (I)

M-Z-X_2-P-X_1 (II)

wherein:

X_1 is from zero to twenty natural or synthetic amino acids;

P is a peptide comprising Gly Pro Arg (SEQ ID NO: 1), or an analog or fragment thereof;

X_2 is from zero to twenty natural or synthetic amino acids;

Z is a linker comprising one or more natural or synthetic amino acids; and

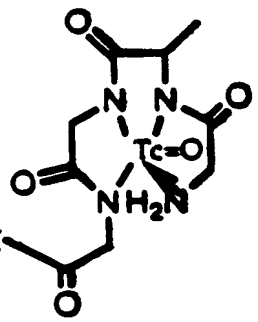
M is a radiolabeling moiety comprised of a chelating moiety capable of complexing with a selected radionuclide.

2. The composition according to Claim 1 comprising SEQ ID NO: 1.

3. The composition according to Claim 1, wherein the radiolabeling moiety is complexed to the radionuclide.

4. The composition according to Claim 3, wherein the radionuclide is technetium-99m.

5. The composition according to Claim 3 having the formula:



6. The composition according to Claim 1, wherein M comprises Gly –(D)-Ala-Gly-Gly (SEQ ID NO: 4) as a chelating moiety for a radionuclide.

7. A method of imaging mammalian cells or tissue, comprising administering a diagnostically effective amount of the composition of Claim 1 to a mammal at a target site and detecting the composition at said target site.

8. The method of Claim 6, wherein said target site is a mammalian thrombus.

9. A method of imaging thrombus in a mammal, comprising:

administering a diagnostically effective amount of a composition that binds to fibrin, said composition having a radiolabeling moiety; and

detecting said composition at a site of said thrombus.